

Fig. 1

```
Majority
      TWKLYIMKGYFNIYFLIPLIFLYNVIRINESIIGRTLYNR 118
EBP1.SEO
EBP2.SEQ
RBP3.SEQ
EBP4.SEQ
          --- MKGKMNMCLFFFYSILYVVLCTYVLGIS-BEY-L 100
RBP5.SEO
Majority KBXXKGLDVYX-N-N--NNN---N-
EBP4.SEQ - - - - G L - - - - - 10
EBP5.SEQ KERPQGLNVETNINN - - INN N N N N N S N D A M S F V - - - N E V 205
Majority
                                100
EBP1.SEQ - DILNNSKFNKRWKSYGTPDNIDKNMSLJINKHNN-
                                                       - E B M F 310
EBP2.SEQ INSFVENKSVKKKRSLSFINNKTKSYDTIPPSYSYRNDKF
                                                              343
EBP3.SEQ
                                   Majority N - - - S - L - I S X Y G - - N - Y - N - N -
                                140
EBP1.SEQ NNNYQSFLSTSSLIKQNKYVPINAVRVSR--
                                                        L D S R 421
- - IK IY G - -
EBP4.SEQ
        - - V SSFLNIK KY GR K G EYLNRN - - - - - - S F V OR S 376
                      --L--CGXKRKXIKWICXXNXXKSNNVCI
Majority
                  170
                                180
      INNGRNTS SNNEVL SNCREKRKGMKWDCKKKNDRSNYVCI 541
TH------LFACGIKRKSIKWICRENSBKIT-VCV 544
------LYBCGKKIKEMKWICTDNOFKSNNLCA 178
EBP1.SEQ
EBP2.SEQ
EBP3.SEQ
                           - - - - - IINWM - - - - - - - - - 5

- CKGKRSTHTWICBNKGN - - NNICI 454
EBP4.SEQ
EBP1.SEQ PDRRIQLCIVNLSIIKTYTKE - - - - - - - TMKDHFIE A
EBP2.SEQ PDRKIQLCIANFLNSRLETME - - - - - - - KFKEIFLIS
EBP3.SEQ PIRRIQLCIVNIILFSENENEYIYKNDSINNKFKENILKA
                                                 TMKDHFIEA 631
                                                              298
EBP4.SEQ
EBP5.SEQ PDRRVQLCITALQDLKNSGSE----TTDRKLLRDKVFDS
Majority V K X E S X L L X N K N X N K Y N S K F C D D L K N S F L D Y G D I I I G X D L
                  250
                                              270
EBPS.SEQ AMYETDLLWNKYGFRGFDDFCDDVKNSYLDYKDVIFGTDL
```

```
Majority DFGGNSDXVEEXIKKXFKX-YX-
                               290
                                                                              310
                                                                                                     320
EBP1.SEQ D F G G Y S T K A E N K I Q E V F K G A H G - - - - - - - E I S E H K I K EBP2.SEQ D F G G N T D R V K G Y I N K K F S D Y Y K - - - - - - - E K N V E K L N
                                                                                     EISEHKIK 841
                                                                                                         844
          IYKNNTDYIKEQFKKIPNNEYNNNELNDELNNELNDEKN
                                                                                                         538
                                                                                                         100
EBP5.SEQ DKNNISKLVEESLKRFFKK--DSSVLN--
Majority N-RKEWWEKYKEXLWEXMIXEHKXNI---CKXIPXEEPQI
                                                                              350
EBP1.SEQ N F R K K W W N E F R E K L W E A M L S E H K N N I N N - C K N I P Q E E L Q I
                                                                                                         958
EBP2.SEQ NIKKEWWEKNKANLWNHMIVNHKGNISKECAILPAEEPQI
                                                                                                         964
          KLRKEWWEKYKEDIWEEMTKEHNDKFIEKCKYFAKDEPQI 658
EBP3.SEQ
                                                                                                         100
EBP5.SEQ - - PTAWWRRYGTRLWKTMIQPYAHL - - - GCRKPDENEPQI 859
Majority NRWIKEWXK---XFLXEKXXLL---KXKCXENXKYEAC
                               370
                                                                              390
EBP1.SEQ TQWIKEWHG---EFLLERDNRSKLPKSKCKNNTLYEACEK 1069
EBP2.SEQ NLWIKEWNE---NFLMEKKRLFLNIKDKCVENKKYEACFG 1075
EBP3.SEQ VRWIEEWSK---QFLDEKNYMLFTLRNTYNEMNIIHE--- 760
                                                                                                         100
EBP5.SEQ NRWILEWGKYNCRLMKEKEKLL - - TGECSVNRKKSDCST 970
Majority GCXNECKKYRSWIXKSKXEWTILSNEY -
                                                       420
                                                                              430
EBP1.SEQ ECIDPCMKYRDWIIRSKFEWHTLSKEY
                                                                                               ETQK 1162
EBP2. SEQ G C R L P C S S Y T S F M K K S K T Q M E V L T N L Y
                                                                                             - KKKN 1168
EBP3.SEQ - - - M C KQY N K W V Q N R K K E W T F L S N E F - - - - - - - N K I - 841
EBP4.SEQ - C K S E C K K Y K A W I D K K N N D F T I L S E I Y L K - - - - Y N K K S 199
EBP5.SEQ GC NNE CYTYRSLINR QRYEVSILG KKYIKVVRYTIFRRKI 1090
Majority VPXDNAXNFLKXIFKEYKDNDVSXIFXNLNAEYXNKCDCQ
                               450
                                                                              470
EBP1.SEQ V PK EN A ENYL I KIS EN KNDAKVSL L LNNCDAE Y SKYCDCK 1282
EBP2.SEQ SGVDK - NNFLNDLFKKNNKNDLDDFFKN- EKEYDDLCDCR 1282
EBP3.SEQ FPERNVQIHISNIFKEYKENNVDIIFGTLNYEYNNFCKEK 961
EBP4.SEQ SLYKTAFEYLKQKWDKYKELNFSSIFDQLNAKYYNKCICQ 319
EBP5.SEQ VQPDNALDFLKLNCSECKDIDFKPFFEFEYGKYEEKCMCQ 1210
Majority X T - I T L X K S F L K G N D I C S X N I X X X I X X X D L S - F G C K E K S -
                               490
                                                       500
                                                                              510
EBP1.SEQ HT - TTLVK SVLNGNDNTIKEKREHIDLDDFSKFGCDKNSV 1399
EBP2.SEQ YT - ATIIK SFLNGPAKNDVDIASQINVNDLRGFGCNYKS - 1396
EBP3.SEQ PELVSAAKYNLKAPNAKSPRIYKSKEHEESSVFGCKTK - I 1078
EBP4.SEQ NNKIENNALYVKIEDICN - NTKVKSIYGEL - - Y - CKEKG - 424
EBP5.SEQ SY-IDLKIQF - KNNDICSFNAQTDTVSSDKR-F - CLEKK - 1315
Majority -- NXKXWNC-KXXFKXXXP-GVCGPPRRQQLCLGNL-YLL
                               530
                                                                              550
EBP1.SBQ D T N T K V W E C - K K P Y K L S T K - D V C V P P R R Q E L C L G N I - D R I 1510
EBP2.SEQ - N N E K S W N C - T G T F T N K F P - G T C E P P R R Q T L C L G R T - Y L L 1504
EBP3.SEQ S K V K K K W N C - Y S N N K V T K P E G V C G P P R R Q Q L C L G Y I - F L I 1192
EBP4.SEQ - N D K I W Q C I N E H I K D F P D - - V C G P P R R Q Q L C L G N L D - - 523
           - BFKPWKCDKNSFBTVHHKGVCVSPRROGFCLGNLNYLL 1429
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```
Majority XDG - - - - N L E X L K E H I L X A A I Y E G K L L K E K Y K N K
                                    570
                                                                                                                     600
EBP1.SEQ YDK - - - - NIL MIKEHILAIAIYESRILKRKYKNK
EBP2.SEQ HRG - - - - HEEDYKEHLLIGASIYEAQLLKYKYKEK
                                                                                                                          1600
                                                                                                                          1594
EBP3.SEQ R D G - - - - N B E G L K D H I N K A A N Y B A M H L K E K Y E N A - - - - - 1282
EBP4.SEQ K D E F K N V N D L K K F L N E I I L G I R D R G K F L I E K Y R K N M H E N M 643
EBP5.SEQ N D D I Y N V H N - S Q L L I E I I M A S K Q E G K L L W K K - - - - H G T I 1531
                                                                                                                          1282
                                                                                                            - HGTI 1531
Majority - DDXXACKIINXSYADIKDIIXGXDXWNDXNSIKLBENLN
                                                               620
                                                                                          630
EBP1.SEQ - D D K E V C K I I N K T F A D I R D I I G G T D Y W N D L S N R K L V G K I N 1717
EBP2.SEQ - D E N A L C S I I Q N S Y A D L A D I I K G S D I I K D Y Y G K K M B B N L N 1711
EBP3.SEQ - G G D K I C N A I L G S Y A D I G D I V R G L D V W R D I N T N K L S B K F Q 1399
EBP4.SEQ Y L D E R A C K Y L N Y S F D D Y K N I I L G K D M W R D P N S I K T B N I L K 763
EBP5.SEQ L D N Q N A C K Y I N D S Y V D Y K D I V I G N D L W N D N N S I K V Q N N L N 1651
Majority KIFEXNXGXRNKQ -
                                                                        - S L K E F R N K W W D X N K N X V
                                    650
                                                               660
                                                                                          670
                                                                                                                      680
                                                                           N D K L F R D E W W K V I K K D V 1801
EBP1.SEQ T N - - S N Y V H R N K Q -
EBP2.SEQ K V - - N K D K K R N E E -
Majority WEVMSCVI----KXKKTCKRXDDFENIPQFLRWFSEWGDD
690 700 710 720

EBP1.SEQ WNVISWVF-----KDKTVCKE-DDIENIPQFFRWFSEWGDD 1906

EBP2.SEQ WKVMSAVL----KNKETCKDYDKFQKIPQFLRWFKEWGDD 1903

EBP3.SEQ WSSMVKHI----PKGKTCKRHNNFEKIPQFLRWLKEWGDE 1597

EBP4.SEQ WEAISCEPYKGNHT-GVCLMEDDNDN--QYLHWFREWKND 965

EBP5.SEQ WESMRCGIDEVDQRRKTCERIDELENMPQFFRWFSQWAHF 1876
Majority FCEDKX - - - - - KEICXXEKXKVECKXKNCSD - - XXCKNK
                                                               740
                                    730
                                                                                          750
                                                                                                                      760
EBP2.SEQ F C B K R K - - - - - E K I Y S F E S F K V B C K K K D C D E - - N T C K N K EBP3.SEQ F C B E M G - - - - - T E V K Q L E K I - - - C E N K N C S E - - K K C K N A EBP4.SEQ F C I D K L K W N D V I K E P C I D K K V K S P K P S E N P S D V A T V C N K S EBP5.SEQ F C K E K E Y W E L K L N D K C T G N N G K S L C Q D K T - - - - - - C Q N V
                                                                                                                          1993
                                                                                                                          1999
                                                                                                                          1684
                                                                                                                          1105
 Majority CSSYKKWIXXKKXEYEKQSKKYDKDKKLFNNY - - Y - E F K D
                                     770
                                                               780
                                                                                          790
                                                                                                                      800
Majority KKAXVYLKEXSKKCSNINFXDEIFXELPNXYKEXCT - CX -
                                     810
                                                                820
                                                                                           830
 2227
                                                                                                                       - 2233
                                                                                                                           1912
             LKPWEYL-
 EBPS.SEQ KNVTTFLKENAKNCSNIDFT-KIFDQLDKLFKERCS
```

Fig. 2C

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Majority DTQXL----
                                                             860
                                                                                       870
EBP1.SEQ EVKDVPI----SIIRNNEQTSQEAVPEESTEIA-HRTE 2326
EBP2.SEQ E I K Y L - - - - - - - - - - - - -
EBP3.SEQ N - - - - - - - - - - - P SS S KALKP I KTN V F - PI BE 1972
EBP4.SEQ D T Q T P V Y P Y K G - - - - - - - - - - - - - - - - Y E DI C K 1315
                                                                                                                      2248
EBP5.SEQ DTQ VLEVKNKEMLSIDSNSEDATDISEKNGEEELYVNHNS 2308
Majority SXVXBXXXBXXKSKDXKNPX---G--G---
                                                             900
                                                                                       910
EBP1.SEQ T R T D E R K N Q E P A N K D L K N P Q Q S V G E N G T K D L L Q E D L G G S R 2446
EBP2.SEQ - - - - - - - - N E I K Y P K - - - - - - - - T K 2275
EBP3.SEQ S K K S E L S S L T D K S K N T P N S S - G G G N Y G D R Q I - - - - - - S K 2068
EBP4.SEQ S T V K P Y D P E D I K D E B F N E P - - - - - - - - - - - - - - - 1372
EBP5.SEQ V S V A S G N K E I E K S K D E K Q P E K B A K Q T N G T L T V R T D K D S D R 2428
Majority X - - - -
                                      ----DXLXVQEFGVNHXXPKE--XTLGXSD
PKIGEXXK - - XEXEXXRXXE - E - K -
                                                             980
Majority - XXXXXEEPE-E--XEXXEXIKDXSSSPLXSS---
                                  1010
                                                            1020
                                                                                       1030
EBP1.SEQ A L S T S V D E P E L S D T L Q L H E D T K E N D K L P L E S S - - - T I T S P 2719
EBP2.SEQ - I N A N I N E - - - - - - - Q Q S G K D T - - - - - - - - - 2377
EBP3.SEQ - - - - - - - - - I E G K E K S K G D H S S P V H S K - - D I - - 2242
EBP4.SEQ S G A N G R E D P S T E S S T Y N D G V I T - - S S S L G S S S G R D V S S - 1663
EBP5.SEQ E Q E Q K Q E Q E E E E Q K Q E E E Q Q I Q D Q S Q S G L D Q S S K V G V A S E 2788
Majority - NXGSSGTEQXVVSSE-EK-PEEKXXDXDSXSDTSISSEX
                                  1050
                                                            1060
EBP1.SEQ TESGSSDTEETPSISEGPKGNEQKKRDDDSLSKISVSPEN 2839
Majority GXESSDADXAXDVXSLSGDKDXSRXRSIIXSXXEXXXNVL
                                  1090
                                                            1100
                                                                                       1110
                                                                                                                 1120
EBP1.SEQ S R P E TD A K D T S N L L K L K G D V D I S M P K A V I G S S P N D N I N V T 2959
EBP2.SEQ - P E S D A - A I N V E K L S G D E S S E T R G I L D - - - - - - - - - 2503
EBP3.SEQ G Q S S N S S D N D P A V V S G R E S K D V N L H T S - - E R I K E N E E G V I 2461
EBP4.SEQ G K E S S Q E Q H N L D G S S L S R H S N Q D E E R S I I T S D V E H G T N S L 1888
EBP5.SEQ P N E N S V V D R A T D S M N L D P E K V H N E N M S D P N T N T E P D A - S L 3025
```

```
Majority K X D X X X X I N X K X L X S D V - - I X X N H E D V X X X P N E X D T V X N
                                           1130
                                                                            1140
                                                                                                                                              1160
                                                                                                             1150
EBP1.SEQ E Q G D N I S G V N S K PL S D D V - R P D K N H E E V K B H T S N S D N V Q Q 3076
EBP2.SEQ - - - - - - - - I N D P S V T N N V - - - - - - N E V H D A S N T Q G S V S N 2578
EBP3.SEQ K T D B S S K S I B I S K I P S D - - - Q N N H S D L S Q N A N E D S N Q G N 2569
EBP4.SEQ F G S Q I Q D Q E T - - - - - - - - - - I L G E S E P L T T S F P B H B T S K M 1978
EBP5.SEQ K D D K K B V D D A K K E L Q S T V S R I B S N B Q D V Q S T P P B - D T P T V 3142
Majority XGXIGNK-XEKXLKXAXXNSSSSXDXG-KXXXETXE-
                                           1170
                                                                             1180
                                                                                                             1190
EBP1. SEQ SGGIVNM N VEKELKOTLENPSSSLDEG-KAHEELSEPNLS 3193
EBP2.SEQ T S D I T N - - -
EBP2.SEQ T S D I T N - - - - - 2596
EBP3.SEQ K E T I N P P S T E K N L K E I H Y K T S D S D D H G S K I K S E I E P K E L T 2689
EBP4.SEQ D T H A G G K - N M E Q V R N A S V D S S S E M S N G G R G G L K T K E - - M K 2089
EBP5.SEQ E G K V G D K A E M L T S P H A T D N S E S E S G L N P T D D I K T T D G V V K 3262
Majority BEEXLGXXESXLXXTXXNLEBSIX - XSXXEQSENXGSXTX
                                           1210
                                                                             1220
                                                                                                                                              1240
EBP1.SEQ S D Q D M S N T P G P L D N T S E E T T E R I S - N N E Y K V N E R E G E R T L 3310
EBP1.SEQ S D Q D M S N I P G P D D N I S E S I TEN I S - N N E I N V N E N S G D K I D S S H 2698
EBP2.SEQ - - - - - G H S E S S L N R T T N A Q D I K I G - R S G N E Q S D N Q E N S S H 2698
EBP3.SEQ E E S P L T D K K T E S A A I G D K N H E S V K - S A D I F Q S E I H N S D N R 2806
EBP4.SEQ G E E V T G - - - I T S K N D I N L E D S T - V H S R Q N K I E N S G D N T Q 2194
EBP5.SEQ E Q E I L G G G E S A T E T S K S N L B K P K D V E P S H E I S E P V L S G T T 3382
Majority GKEXSESLXXXSXXSEXXTXPXYDDNXD-X-T---SED-
                                           1250
                                                                             1260
EBP1.SEQ TKEYEDIVLKSHMNRESDDGELYDENSD-LSTVNDESEDA 3427
EBP1.SEQ TKEIEDIVD KASAR KEBS DD GE BILD KASAR KEBS DD GE BAT DD VVE NSRDD 3502
Majority -- S -- G - X X S E - S -
                                                                                            ---IXSXPHDNXRIXTT
1290 1300 1310 1320

EBP1.SEQ E A K M K G N D T S E M S H - - - - - - N S S Q H I E S D Q Q K N D M K T V G 3526

EBP2.SEQ - - - - - - - - - - - - - - N P H R D T P N A L A 2809

EBP3.SEQ A P S I N G H E K - - - - - - - - - - - - - - - T G S S A D D R - - - - - 2962

EBP4.SEQ - - - - - L E S E F S K L N R - - - - - - T S H T H D N N R I E T T 2344

EBP5.SEQ N N S L S N S V D N Q S N V L N R E D P I A S E T E V V S E P E D S S R I I T T 3622
Majority X L G S - - - -
                                          --DDK-NE--
1330 1340
EBP1.SEQ D L G T - - - - - T H V Q N E - - - - -
EBP2.SEQ S L P S - - - - - D D K I N E - - - -
                                                           Q N E - - - - - - - - - - - I S V P V T G E I 3583
I N E - - - - - - - - - - - - - - 2842
- - - - - - - - - - - - - - - - - - S I I D K D 2995
R S E B V G R V B 2 7 7 7 7 7
EBP3.SEQ - - GS - - - - EDK
EBP4.SEQ A - - - - - - EDK
EBP5.SEQ E V PSTTVKP PDEKR SEE V G E K E A K E I K V E P V V P R A I G E P M 3742
Majority EENFXXSSXSNVHD - -
                                                                                                       - - SHTDIXXINXEG
                                           1370
                                                                                                              1390
                                                                                                                                              1400
                                                                                                  - - SHTDIHKINPED 3679
 EBP1.SEQ DEKLRESKESKIHKAEEERL----
EBP5.SEQ ENSVSVQSPPNVEDVEKETLISENNGLHNDTHRGNISEKD 3862
```

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Majority RXDXTLLTXDXRXT-LE---RNG--NI-SESDVX-HXFHX
                       1410
                                         1420
                                                          1430
                                                                            1440
EBP5.SEQ LIDIHLLRNBAGSTILDDSRRNGEMTEGSBSDVGBLQEHN 3982
Majority X S N X X G D E X X - - - I -
                                   1450
                                         1460
                                                                            1480
EBP1. SEQ M N N L H G D G V S E R S Q I N H S H H G N R Q D R G - - - G N S G N V L N M 3907
EBP5.SEQ FSTQQKDEKDFDQIASDREKBEIQKLLNIGHEEDEDVLKM 4102
Majority XRN--SXXDNPNSXNY---D-K-NIEEYNNRDXSKVREL
                                         1500
                       1490
                                                          1510
                                                                            1520
EBP1.SEQ R S N N N N F N N I P S R Y N L - - - Y D K K L D L D L Y E N R N D S T T K E L 4018
EBP2.SEQ - - - - - - Y K D N P K R S N F S S E N D H K K N I Q E Y N S R D T K R V R E B 3169
EBP3.SEQ K P N K S S - - - - - - - - - - - - - - - - P V T S F D H V D S P N I S E L 3208
EBP4.SEQ P R - - - N V L N N K N S R T Y - - - - - - - N I E E Y I Y R D V N K V A D D 2623
EBP5.SEQ D R T E D S M S D G V N S H L Y Y N N L S S E E K M E Q Y N N R D A S K D R E E 4222
Majority IXKLSKXNKCXNEXSXKYCXYMXXEX-LLXTCSXEKRKXL
                       1530
EBP1.SEQ IKK LAE IN K CENEIISVKYCDHMIHEEI PLKTCTKEKTRNL 4138
EBP2.SEQ IIKLSKQNKCNNEYSMEYCTYSDERNSSPGPCSREERKKL 3289
                                                                                3208
EBP3.SEO
EBP4.SEQ I M R S Y K S N R C T N N L S S N Y C S K L K K E S - L S N T C T N E D S K R L 2740
EBP5.SEQ I L N R S N T N T C S N E H S L K Y C Q Y M E R N K D L L B T C S E D K R L H L 4342
Majority CCXISDYCLKFFNFXSIEYYNCTKKEFDSPXYKCFRGEGF
                       1570
                                         1580
                                                           1590
EBP5. SEQ C C E I S D Y C L K F F N P K S I E Y F D C T Q K E F D D P T Y N C F R K Q R F 4462
Majority SSMFX-------
                        1610
                                                                                . 4261
EBP1.SEQ - - - F S
EBP2.SEQ S S M F H I
                                                                                3427
EBP3.SEQ S
EBP4.SEQ S M F N L D K K K K K K K K K G
                                                                                3256
                                                                                2914
EBP5.SEQ TS MS CY - - - - KIKNNIH
                                                                                 4501
```

Decoration 'Decoration #1': Box residues that match the Consensus exactly.

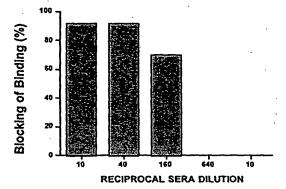


Fig. 3